4-Service Tools and Service Concepts

ISSUE 1 11/04
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Table of Contents

Page No

Service Tools 5
Standard service tools 11
Service cables 12

Flashing Setup Instructions 15
POS (Point of Sale) flash concept 15
Flash concept with flashing adapter 16
Module jig concept 17
JBV-1 flash concept 18
Service concept 19

List of Figures

Page No
Fig 1 POS flash 15
Fig 2 Flash concept with flashing adapter 16
Fig 3 Module jig concept 17
Fig 4 JBV-1 Flash concept 18
Fig 5 Service Concept 19

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Service Tools

Product	Service Tool	Product Code	Photo	Description Info
JBV-1	Docking Station	0770298		The JBV-1 docking station is a general tool that has been designed for calibration and software update use. The DA-40 docking station adaptor is a product-specific tool that provides signal connections to the phone. The JBV-1 and the DA-40 are used as one unit. In the calibration mode the JBV-1 is powered by an external power supply: 11-16V DC. When flashing, the power for the phone can be taken from the FPS-8 or an external power supply: 11-16 V DC..

Note! The JBV-1 main electrical functions include the following:

- Adjustable VBATT calibration voltage, current measurement limit voltage: VCHAR, current measurement: ICHAR
- Adjustable ADC calibration voltage via BTEMP and the BSI signal
- BTEMP and BSI calibration resistor
- Signal from FBUS to the phone via the parallel jig
- Control via FBUS or USB
- Flash OK/FAIL induction

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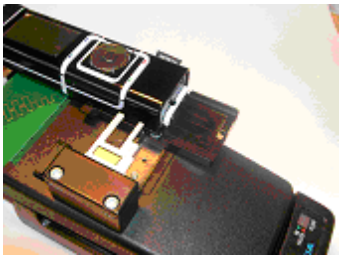
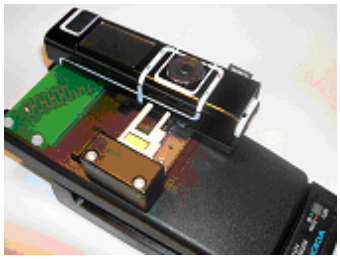
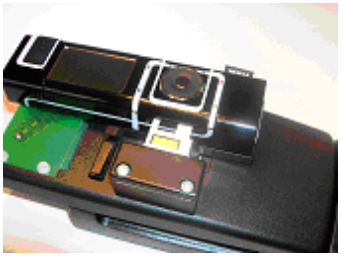
Product	Service Tool	Product Code	Photo	Description Info
DA-40	Docking Station Adapter	0780380		The docking station adapter DA-40 is used for the RM-14 in combination with the JBV-1. The DA-40 supports flashing and energy management calibration. Feature includes compatibility with the JBV-1, easy phone attachment and detachment, reliable phone locking, switch for detecting phone, replacable SIM interface.

Operating instructions:
Important! First remove the SIM holder from the phone.
1) To insert the phone, first slide the bottom end (with the bottom connector) into the grip in the slide

2) Then carefully push in the slide so the SIM interface is inserted into the SIM



3) To remove the phone, push the phone straight away from the SIM interface.
4) Then carefully slide out the phone from the slide. Be careful not to lift up the phone until it has left the grip on the slide.

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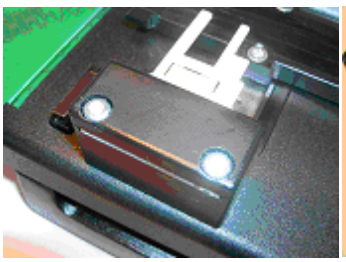
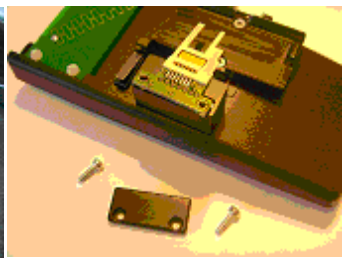
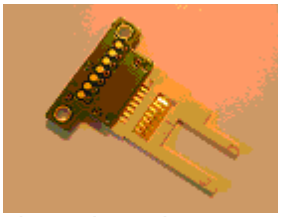
Replacing the SIM interface:

1) Remove the two screws on top of the tower holding the SIM interface.

2) Replace the SIM interface. Make sure the PWB is mounted with the pads downward towards the pogopins in the tower.



3) Replace the top part over the SIM interface, product code 0780506 .

MJ-34	Module Repair Jig	0780346		The MJ-34 module repair jig is designed for regional service centers to allow component level troubleshooting, testing and analysis. *Note! The supply voltage for the MJ-34 has to be kept within the range 8-12V when using the build in the regulator. When bypassing the regulator (IMEI rewrite) the voltage must be kept below 5,4V.*

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General features:

- EDS proof design
- Component level access while inserted in the jig (for components not located underneath the shielding cans)
- Access to system connector
- SIM card reader
- Place for UI board with keymat including POWER-On button (the RED End key)
- Place for the display
- Support for IrDa testing
- BT SMA connector
- RF SMA connector

Power supply features

- Jig and phone supply via 5mm DC jack
- 2A replaceable fuse
- Voltage regulator
- Direct power feeding (bypassing regulator with a jumper)
- Reverse voltage protection
- Over-voltage protection
- On-indicator (green LED)

Spare parts:

- SS-53 Display flex removal tool: 0780512
- SS-52 UI flex handling tool :0780511

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Operating instructions:

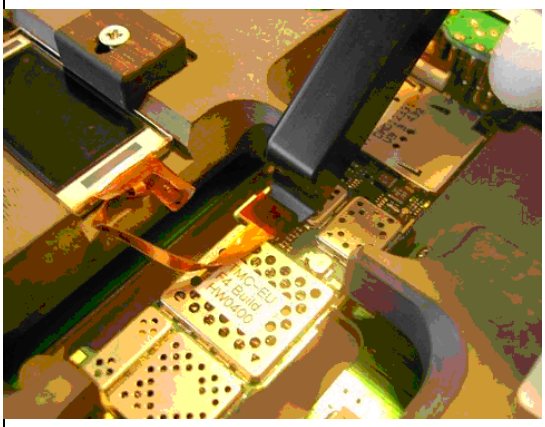
When inserting the PWB be careful to place it over the steering pins.

When inserting the UI flex, use the enclosed tweezers (placed on the left side of the jig, see pic above) to avoid damaging the flex. Be very careful when handling the UI flex, as it is very fragile and easily breaks!

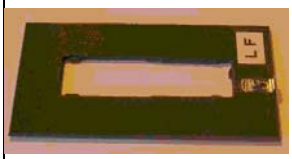
See this picture:

The display flex can be mounted carefully by hand. When removing the display flex, use the special tool (placed on the right side of the jig) to carefully twist up the connector.

See this picture:



The switch marked “ON-OFF” has the same function as the reset switch in the SIM reader. When in off position, the battery voltage is switched off. This is used to test the reset circuit.

RJ-38	Soldering Jig	0780381		The RJ-38 soldering jig is used for soldering and rework for the main board. the material is resistant to the heat used by lead free soldering. The PWB can inserted both with A and B side upwards.

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Product	Service Tool	Product Code	Photo	Description Info
SA-41	RF Coupler	0770767		Enables RF connection with DA-40. Note! 900MHz: 8dB+/-1, 18001900MHz: 9dB+4/-2 The highest loss in the low end of 1800 MHz.
SF-30	POS Flash Adapter	0780347		The SF-30 is a POS flash adaptor provided for the RM-14 phones.

Spare parts:

- Spare SIM interface for SF-30: 0780507.

Replacing the SIM interface:

Remove the 4 screws in the bottom and carefully remove the bottom part:

Carefully lift up the PWB. The SIM interface is connected to the main PWB by a 9 pole SUB-D Connector. Carefully pull out the connector and replace the SIM interface.

Insert the PWB into the casing.

Note! When inserting the PWB, make sure the green LED (light diode) fits into the small hole in the casing.

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Standard service tools

Product	Service Tool	Product Code	Photo	Description Info
ACF-8	Universal Power Supply	0680032		ACF-8 is used to power FPS-8 and FLS-4S. ACF-8 has 6 V D and 2.1A output.
FLS-4S	POS Flash Adapter	0080543 (AMERICAS) 0080542 (APAC) 0080541 (EMEA)		FLS-4S is a dongle and flash device incorporated into one package, Developed specifically for POS use..
FPS-8	Flash Prommer	0080321		The Flash Prommer FPS-8 is used with e.g. DA-8 and JVB-1. Power is supplied to FPS-8 from the Universal Power Supply *Note! Includes AXS-4, AXS-8, ACF-8 and printer cable (cable code: 0730029)*.

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Service cables

Product	Service Tool	Product Code	Photo	Description Info
DAU-9S	MBUS Cable	0730108		The MBUS cable DAU-9S has a modular connector and is used between PC serial port and, for example, the MJS-38.
FLC-2	DC Cable	0730185		FLC-2 is used to supply a controlled operating voltage.
PCS-1	Power Cable	0730012		The power cable PCS-1 is used to connect the service tools to an external power supply (e.g. JBV-1 to FPS-8).
CA-5S	Docking Station Cable	0730283		The DC cable CA-5S is used to connect the service power supply to the charger connection. The old SCB-3, 0730114, cable can be used, too.

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Product	Service Tool	Product Code	Photo	Description Info
XCS-1	Service Cable	0730218		The XCS-1 service cable is used to connect FLS-4 to SF-30.
XCS-4	Modular Cable	0730178		XCS-4 is a shielded cable (one specially shielded conductor) modular cable for flashing and service purposes.
XRF-1	RF Cable	0730085		RF cable is used to connect e.g. module jig MJ-34 to Rf equipment.

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Flashing Setup Instructions

POS (Point of Sale) flash concept

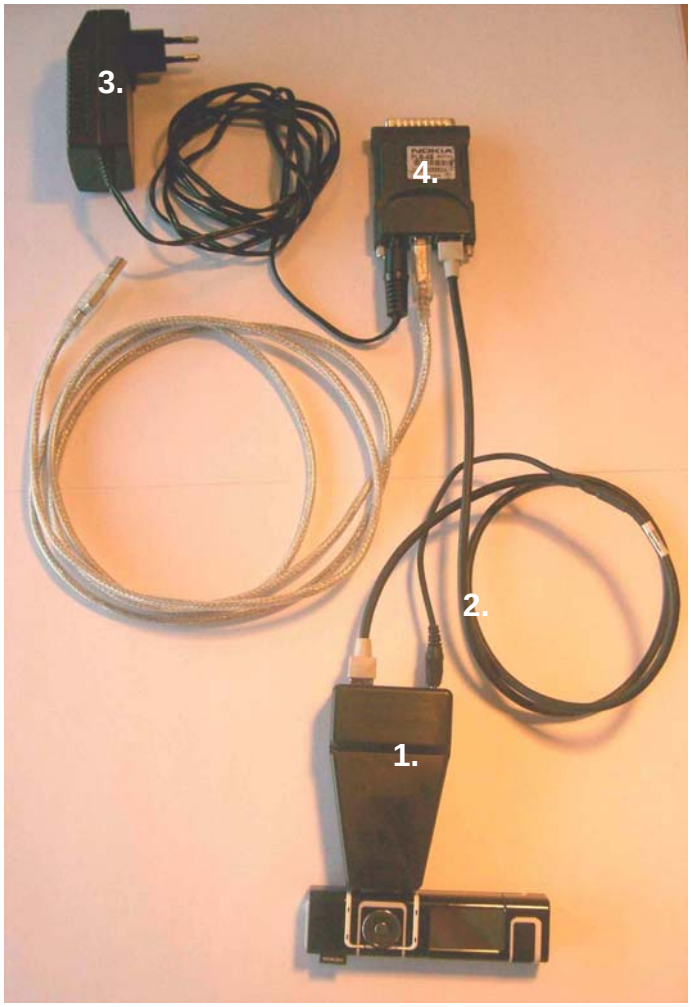

Figure 1:POS flash

Table 1:

Item	Type	Description	Code
1	SF-30	Point Of sales flash loading adapter	0780347
2	XCS-1	Service cable	0730218
3	ACF-8	AC Charger	0680032
4	FLS-4S	FLS-4S sales package E&A	0080541
	FLS-4S	FLS-4S sales package APAC	0080542
	FLS-4S	FLS-4S sales package US	0080543
		Service SW CD-ROM	

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Flash concept with flashing adapter

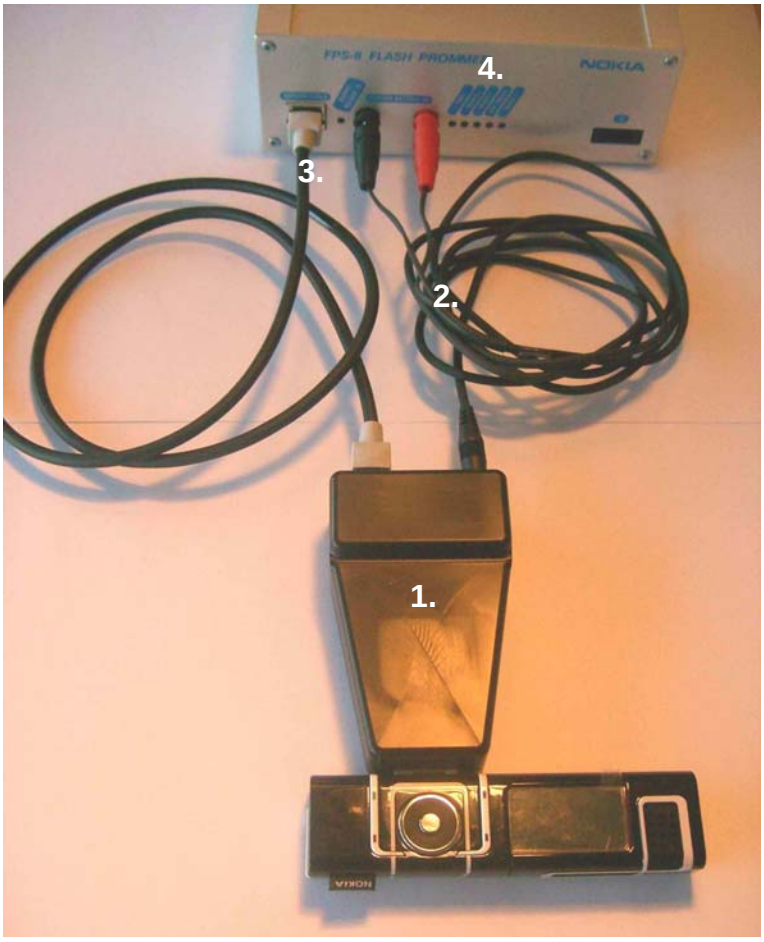

Figure 2:Flash concept with flashing adapter

Table 2:

Item	Type	Description	Code
1	SF-30	Point of sales flash loading adapter	0780347
2	FLC-2	Power cable, incl. in SF-30 sales package	0730185
3	XCS-4	Modular cable	0730178
4	FPS-8	Flash prommer box **with 2x SF12 SRAM**	0080321, 0080346
		Centronics (printer) cable, incl in FPS-8 sales package	0730029
	AXS-4	RS-232 (D9-D9) cable, incl in FPS-8 sales package	0730090
	PKD-1	Software protection key	0750018
		Service SW CD-ROM	
	ACF-8	AC charger, incl. in FPS-8 sales package	0680032

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Module jig concept

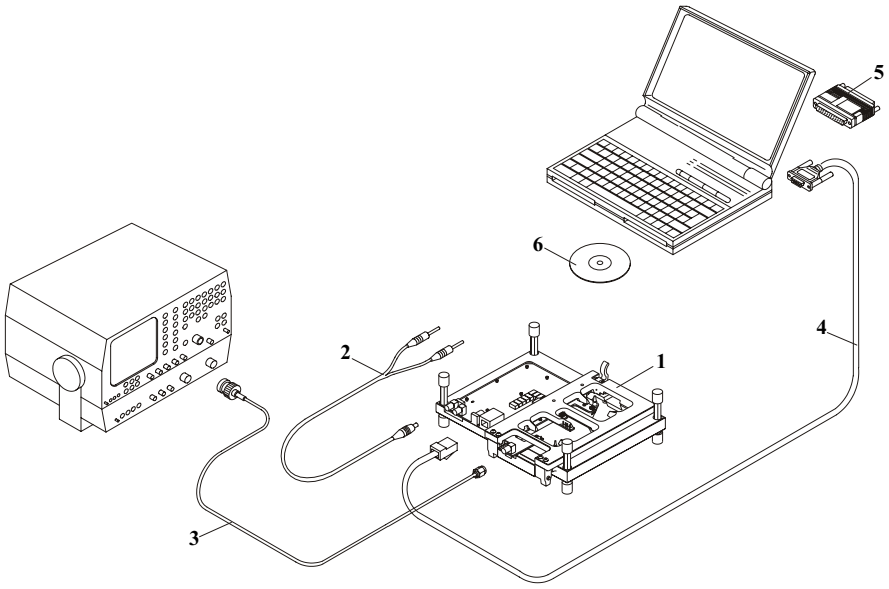

Figure 3:Module jig concept

Table 3:

Item	Type	Description	Code
1	MJ-34	Module jig	0780346
2	PCS-1	DC power cable	0730012
3	XRF-1	RF antenna cable	0730085
4	DAU-9S	Service FBUS cable	0730108
5	PKD-1	Software protection key	0750018
6		Service SW CD-ROM	

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JBV-1 flash concept

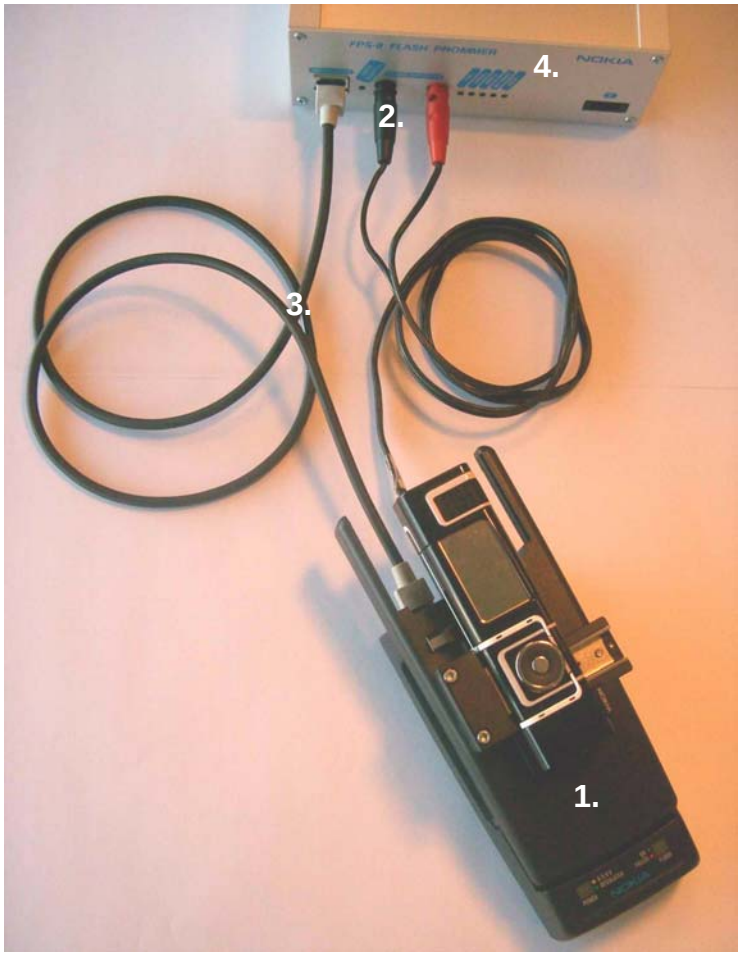

Figure 4:JBV-1 Flash concept

Table 4:

Item	Type	Description	Code
1	JBV-1	Docking station	0770298
2	PCS-1	DC power cable	0730012
3	XCS-4	Modular cable	0730178
4	FPS-8	Flash prommer box	0080321
	Printer cable	Incl. in FPS-8 sales pack	0730029
	AXS-4	D9 – D9 cable, incl. in FPS-8 sales pack	0730090
	PKD-1	Software protection key	0750018
		Service SW CD-ROM	
	ACF-8	AC Charger, incl. in FPS-8 sales pack	0680032
	DA-40	Docking adapter	0780380

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Service concept

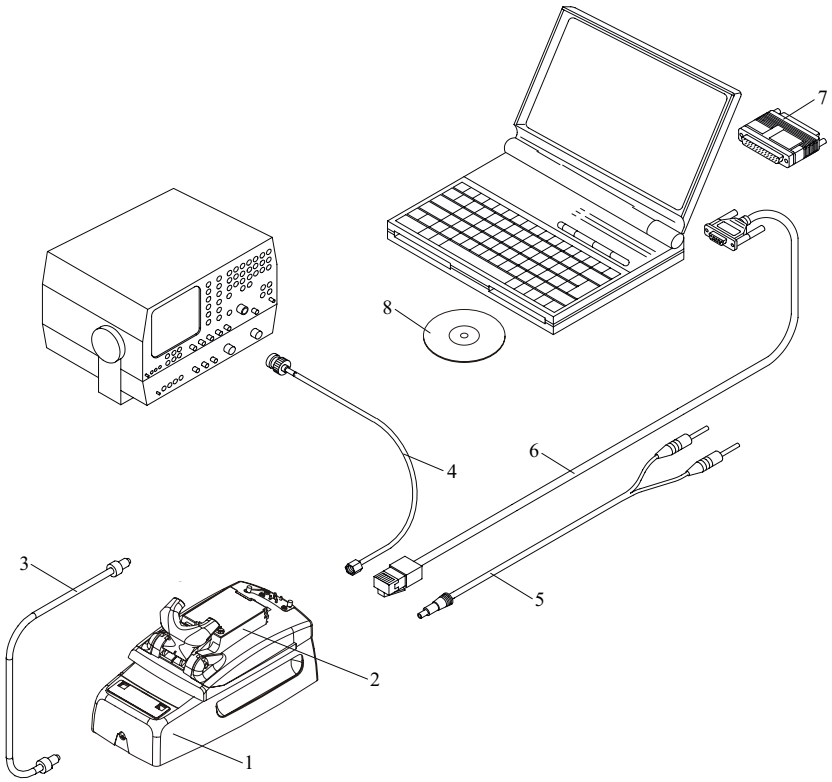

Figure 5:Service Concept

Table 5:

Item	Type	Description	Product code
1	JBV-1	Docking station	0770380
2	DA-40	Docking station adapter	0780380
3	SCB-3	DC-DC cable	0730114
4	XRF-1	RF antenna cable	0730085
5	PCS-1	DC power cable	0730012
6	DAU-9S	Service FBUS cable	0730108
7	PKD-1	Software protection key	0750018
8		Service SW CD-ROM	

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